

April 12, 2004

Mr. Scott Seery  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

ALAMEDA COUNTY  
APR 21 2004  
ELECTRONIC MAIL

**Re: First Quarter 2004 Groundwater Monitoring Report  
ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California  
URS Project #38486728**

Dear Mr. Seery:

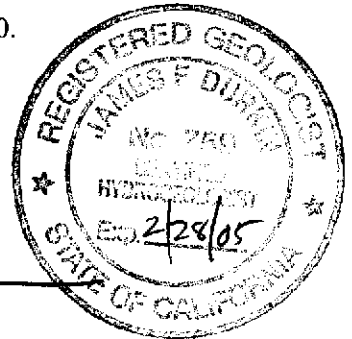
On behalf of Atlantic Richfield Company (ARCO – a BP affiliated company), URS Corporation (URS) is submitting the *First Quarter 2004 Groundwater Monitoring Report* for the ARCO Service Station #6041, located at 7249 Village Parkway, Dublin, California.

If you have any questions regarding this submission, please call (510) 874-3280.

Sincerely,

**URS CORPORATION**

Scott Robinson  
Project Manager

  
James F. Durkin, C. Hg.  
Senior Geologist

Enclosure: First Quarter 2004 Groundwater Monitoring Report

cc: Ms. Karen Petryna, Equiva Services, LLC, PO Box 7869, Burbank, CA 91510-7869  
Mr. Paul Supple, ARCO, (electronic copy uploaded to ENFOS)



Atlantic Richfield Company  
(a BP affiliated company)

P.O. Box 6549  
Moraga, California 94570  
Phone: (925) 299-8891  
Fax: (925) 299-8872

April 12, 2004

RE: First Quarter 2004 Groundwater Monitoring Report  
ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California  
URS Project #38486728

I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by:

Paul Supple  
Environmental Business Manager

**R E P O R T**

**FIRST QUARTER 2004  
GROUNDWATER MONITORING**

**ARCO SERVICE STATION #6041  
7249 VILLAGE PARKWAY  
DUBLIN, CALIFORNIA**

*Prepared for*  
Atlantic Richfield Company

April 12, 2004

**URS**

URS Corporation  
1333 Broadway, Suite 800  
Oakland, California 94612

38486728

Date: April 12, 2004

Quarter: 1Q 04

### ATLANTIC RICHFIELD COMPANY QUARTERLY GROUNDWATER MONITORING REPORT

Former Facility No.: 6041 Address: 7249 Village Parkway, Dublin, California  
ARCO Environmental Business Manager: Paul Supple  
Consulting Co./Contact Person: URS Corporation / Scott Robinson  
Consultant Project No.: 38486728  
Primary Agency: Alameda County Health Care Services Agency (ACHCSA)

#### WORK PERFORMED THIS QUARTER (First – 2004):

1. Performed first quarter 2004 groundwater monitoring event on March 10, 2004.
2. Prepared and submitted first quarter 2004 groundwater monitoring report.

#### WORK PROPOSED FOR NEXT QUARTER (Second – 2004):

1. Perform second quarter 2004 groundwater monitoring event.
2. Prepare and submit second quarter 2004 groundwater monitoring report.

Current Phase of Project: GW monitoring/sampling  
Frequency of Groundwater Sampling: Quarterly: Wells MW-2, MW-3, MW-4 and MW-8  
Annual (3<sup>rd</sup> Qtr.): MW-5 and MW-6  
Frequency of Groundwater Monitoring: Quarterly  
Is Free Product (FP) Present On-Site: No  
Bulk Soil Removed to Date: 3,208 cubic yards  
Current Remediation Techniques: Natural Attenuation  
Approximate Depth to Groundwater: 6.70 (MW-2) to 7.78 (MW-7)  
Groundwater Gradient (direction): South-Southeast  
Groundwater Gradient (magnitude): 0.003 feet per foot

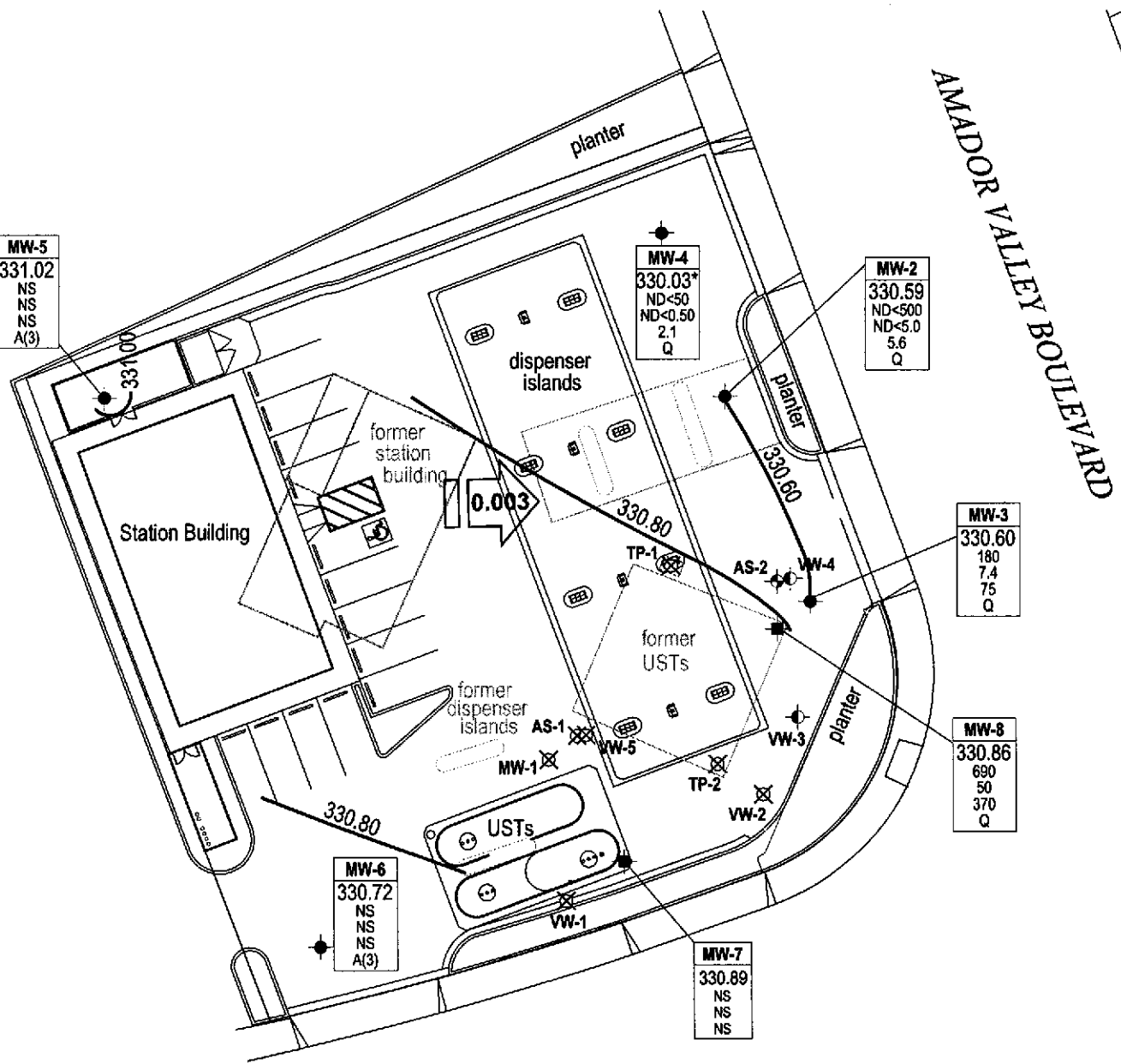
#### DISCUSSION:

Gasoline Range Organics (GRO) were detected above the laboratory reporting limit in two of the four wells sampled at concentrations of 180 micrograms per liter ( $\mu\text{g/L}$ ) (MW-3) and 690  $\mu\text{g/L}$  (MW-8). Benzene was detected above the laboratory reporting limit in two wells at concentrations of 7.4  $\mu\text{g/L}$  (MW-3) and 50  $\mu\text{g/L}$  (MW-8). Methyl tert-butyl ether (MTBE) was detected above the laboratory reporting limit in all four wells at concentrations ranging from 2.1  $\mu\text{g/L}$  (MW-4) to 370  $\mu\text{g/L}$  (MW-8). Tert-Butyl alcohol (TBA) was detected above the laboratory reporting limit in three wells at concentrations ranging from 420  $\mu\text{g/L}$  (MW-8) to 13,000  $\mu\text{g/L}$  (MW-2). No other fuel oxygenates were detected above their respective reporting limits.

URS recommends changing the sampling frequency at MW-4 from quarterly to semi-annually.

**ATTACHMENTS:**

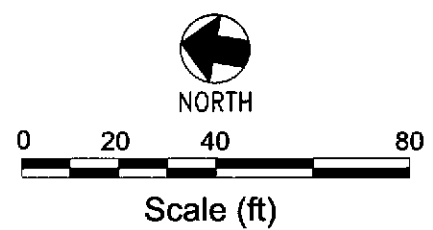
- Figure 1 – Groundwater Elevation Contour and Analytical Summary Map – March 10, 2004
- Table 1 – Groundwater Elevation and Analytical Data
- Table 2 – Groundwater Flow Direction and Gradient
- Table 3 – Fuel Oxygenate Analytical Data
- Attachment A – Field Procedures and Field Data Sheets
- Attachment B – Laboratory Procedures, Certified Analytical Reports and Chain-of-Custody Records
- Attachment C – EDCC and EDF/Geowell Submittal Confirmation



### EXPLANATION

- Groundwater monitoring well
- Vapor extraction well
- ⊕ Shell monitoring well
- ⊙ Air Sparge well
- ⊞ Tank Pit Observation well
- ⊗ Abandoned well
- 331.0 — Groundwater elevation contour (feet above MSL)
- ↗ 0.003 — Approximate groundwater flow direction and gradient (MSL)
- Well designation
- ELEV — Groundwater elevation
- GRO — GRO, Benzene & MTBE concentration in micrograms per liter (µg/L)
- Q or A — Sampling period
- ND< — Not Detected at or above laboratory reporting times
- NS — Not Sampled
- A — Sampled annually, 3rd quarter
- Q — Sampled quarterly

\*Please note that beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPHg) has been changed to Gasoline Range Organics (GRO). The resulting data may be impacted by the potential inclusion of non-TPHg analytes within the requested fuel range resulting in a higher concentration being reported.\*



NOTE: SITE MAP ADAPTED FROM CAMBRIA ENVIRONMENTAL FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.

<b>URS</b>	Project No. 38486728	<b>GROUNDWATER ELEVATION CONTOUR AND ANALYTICAL SUMMARY MAP First Quarter 2004 (March 10, 2004)</b>	FIGURE <b>1</b>
	ARCO Service Station #6041 7249 Village Parkway Dublin, California		

**Table 1  
Groundwater Elevation and Analytical Data**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

Well Number	Date of Sampling/ Monitoring	TOC Elevation (ft-MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Water (ft.)	Groundwater Elevation (ft-MSL)	GRO/ TPH-g <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen <sup>o</sup> (mg/L)	pH Level <sup>o</sup>				
MW-1	02/15/95	336.56	14.00	17.50	8.53	328.03	820	15	ND<1	5.2	1.4	--	--	--	--				
	05/24/95				9.00	327.56	640	12	ND<1	7.3	ND<1	--	--	--	--				
	08/25/95				10.30	326.26	780	2	ND<1	2	2	2,500	--	--	--				
	11/28/95				11.01	325.55	570	2.2	ND<0.5	1.4	0.9	--	--	--	--				
	02/26/96				7.35	329.21	1,100	28	ND<7	13	7	3,400	--	--	--				
	05/23/96				8.73	327.83	560	8.5	ND<1	1.1	ND<1	3,900	--	--	--				
	08/23/96				10.25	326.31	860	ND<1	ND<1	ND<4	2	5,600	--	--	--				
	03/21/97				9.35	327.21	520	12	ND<0.5	2.7	1.5	6,200	--	--	--				
	08/20/97				10.75	325.81	ND<5,000	ND<50	ND<50	ND<50	ND<50	7,400	--	--	--				
	11/21/97				11.10	325.46	ND<5,000	ND<50	ND<50	ND<50	ND<50	8,500	--	--	--				
	02/12/98				P			7.05	329.51	210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8,900	--	1.71	--	
	07/31/98				P			10.04	326.52	ND<20,000	ND<200	ND<200	ND<200	ND<200	18,000	--	2.43	--	
	02/17/99							8.50	328.06	ND<20,000	ND<200	ND<200	ND<200	ND<200	16,000	--	1.0	--	
	08/24/99				P			10.40	326.16	190	ND<0.5	4.4	ND<0.5	1.1	15,000	--	--	--	
	03/01/00				P			8.85	327.71	310	20	0.5	7.6	4	80,000	--	1.57	--	
	08/18/00				P			9.35	327.21	ND<10,000	ND<100	ND<100	ND<100	ND<100	48,400	63,700	1.50	--	
	12/27/00				P			10.81	325.75	ND<10,000	309	ND<100	ND<100	289	44,400	--	0.51	--	
	02/09/01				P			10.65	325.91	2,820	368	ND<25.0	116	176	23,300	--	0.58	--	
	DUP				02/09/01	NR			NR	NR	3,490	432	9.56	146	235	31,800	--	--	--
	DUP				04/17/01				11.09	325.47	2,900	66.0	ND<10.0	33.2	25.1	46,500	--	0.63	--
DUP	04/17/01	NR			NR	NR	2,600	70.1	ND<20.0	32.7	30.6	45,400	--	--	--				
	07/17/01				11.07	325.49	ND<10,000	ND<100	ND<100	130	520	42,000	--	0.69	--				
	12/21/01	Well abandoned during station upgrade activities																	

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Dublin, California

Well Number	Date of Sampling/ Monitoring	TOC Elevation (ft.-MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Water (ft.)	Groundwater Elevation (ft.-MSL)	GRO/ TPH-g <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen <sup>9</sup> (mg/L)	pH Level <sup>9</sup>				
MW-2	02/15/95	334.80	10.50	14.00	6.75	328.05	730	110	1.7	25	66	--	--	--	--				
	05/24/95				6.88	327.92	370	110	ND<1	17	1.9	--	--	--	--				
	08/25/95				7.91	326.89	150	6	ND<1	ND<1	ND<1	2,700	--	--	--				
	11/28/95				9.06	325.74	ND<50	ND<0.5	ND<0.5	ND<0.5	0.8	--	--	--	--				
	02/26/96				6.65	328.15	350	66	ND<0.5	11	1.7	ND<3	--	--	--				
	05/23/96				6.90	327.90	540	140	ND<2.5	13	ND<2.5	4,600	--	--	--				
	08/23/96				8.45	326.35	180	0.8	2	0.7	2.6	4,000	--	--	--				
	03/21/97				7.28	327.52	410	90	ND<1	14	4	3,800	--	--	--				
	08/20/97				8.87	325.93	ND<5,000	ND<50	ND<50	ND<50	ND<50	3,100	--	--	--				
	11/21/97				9.28	325.52	ND<2,000	ND<20	ND<20	ND<20	ND<20	2,600	--	--	--				
	02/12/98				P	5.90	328.90	310	54	ND<0.5	6.2	1.1	3,800	--	3.76	--			
	07/31/98				P	8.12	326.68	6,100	52	220	110	1100	7,700	--	2.96	--			
	02/17/99				P	7.18	327.62	ND<5,000	ND<50	ND<50	ND<50	ND<50	4,200	--	1.0	--			
	08/24/99				P	8.68	326.12	200	1.8	16	3.0	32	3,100	--	--	--			
	03/01/00				P	7.02	327.78	760	24	12	13	59	6,300	--	1.92	--			
	08/18/00				P	7.75	327.05	ND<500	ND<5.00	ND<5.00	ND<5.00	ND<5.00	1,610	1,980	2.03	--			
	12/27/00					8.85	325.95	Not Sampled: Well sampled during first and third quarters											
	02/09/01				P	8.50	326.30	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<0.500	9.11	--	0.53	--			
	04/17/01					9.12	325.68	Not Sampled: Well sampled during first and third quarters											
	07/17/01				P	8.99	325.81	1,200	ND<10	ND<10	ND<10	ND<10	4,200	--	0.69	--			
DUP	07/17/01	NR	NR	3,500	ND<10	ND<10	ND<10	ND<10	3,500	--	--	--							
	12/21/01	NP	8.65	326.15	65	ND<0.50	1.2	0.61	6.7	11	6.5	0.48	--						
	03/06/02	NP	8.61	326.19	ND<50	ND<0.50	ND<0.50	ND<0.50	1.8	31	--	0.35	--						
	04/26/02	NP	8.20	326.60	92	ND<0.5	ND<0.50	ND<0.50	0.64	98	180	0.19	--						
	09/23/02	P	8.50 <sup>4</sup>	326.30 <sup>4</sup>	250 <sup>1</sup>	ND<1.2	ND<1.2	ND<1.2	ND<1.2	--	1,500	2.1	7.3						
	12/27/02	P	7.15 <sup>4</sup>	327.65 <sup>4</sup>	440 <sup>1</sup>	ND<2.5	ND<2.5	ND<2.5	ND<2.5	--	790	1.4	6.9						
	03/12/03 <sup>7</sup>	P	7.33	NR <sup>6</sup>	ND<50	1.6	ND<0.50	ND<0.50	1.2	--	11	2.7	7.0						
	06/28/03 <sup>8</sup>	P	337.29	7.49	329.80	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	1.2	2.0	7.4					
	09/30/03	P	8.20	329.09	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	5.2	2.2	7.0						
	12/05/03	NP	7.73	329.56	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.6	4.3	7.3						
03/10/04	P	6.70	330.59	ND<500	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	5.6	2.1	6.4							



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Dublin, California

Well Number	Date of Sampling/ Monitoring	TOC Elevation (ft-MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Water (ft.)	Groundwater Elevation (ft-MSL)	GRO/TPH-g <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen <sup>9</sup> (mg/L)	pH Level <sup>9</sup>		
MW-3	02/15/95	335.53	12.00	15.00	8.55	326.98	100	14	ND<0.5	6.3	ND<0.5	--	--	--	--		
	05/24/95				8.17	327.36	110	8	ND<0.5	2.7	ND<0.5	--	--	--	--		
	08/25/95				9.27	326.26	210	3.6	ND<0.5	2.9	0.6	20,000	--	--	--		
	11/28/95				9.91	325.62	81	1.5	ND<0.5	1.4	ND<0.5	--	15,000	--	--		
	02/26/96				8.42	327.11	16,000	1,600	1,200	300	2,000	9,500	--	--	--		
	05/23/96				7.70	327.83	6,500	690	ND<10	120	14	8,600	--	--	--		
	08/23/96				9.25	326.28	1,700	85	2	61	5.3	11,000	--	--	--		
	03/21/97				8.72	326.81	100	2	ND<1	1	ND<1	6,600	--	--	--		
	08/20/97				9.73	325.80	ND<5,000	ND<50	ND<50	ND<50	ND<50	7,700	--	--	--		
	11/21/97				10.10	325.43	ND<5,000	ND<50	ND<50	ND<50	ND<50	9,700	--	--	--		
	02/12/98				P	6.68	328.85	110	11	ND<0.5	ND<0.5	1.9	10,000	--	1.02	--	
	07/31/98				P	7.98	327.55	ND<10,000	ND<100	ND<100	ND<100	ND<100	13,000	--	2.59	--	
	02/17/99				P	8.40	327.13	ND<20,000	ND<200	ND<200	ND<200	ND<200	23,000	--	1.0	--	
	08/24/99				P	9.45	326.08	200	0.6	5.6	0.6	1.7	22,000	--	--	--	
03/01/00	P	8.32	327.21	320	32	1.0	6.1	4	58,000	--	2.42	--					
DUP	08/18/00	NR	NR	NR	8.35	327.18	ND<10,000	ND<100	ND<100	ND<100	ND<100	46,200	55,600	1.59	--		
	08/18/00				NR	NR	ND<10,000	ND<100	ND<100	ND<100	ND<100	45,500	51,700	--	--		
	12/27/00				P	9.75	325.78	29,700	1,620	1,730	ND<250	6,230	62,600	--	1.59	--	
	02/09/01				P	9.61	325.92	29,300	2,590	3,530	440	7,080	85,500	--	0.51	--	
	04/17/01				P	9.94	325.59	16,400	1,680	ND<25.0	310	2,290	48,700	--	0.41	--	
	07/17/01				P	9.93	325.60	21,000	1,500	ND<100	1,100	690	82,000	--	0.51	--	
	12/21/01				P	9.40	326.13	ND<5,000	ND<50	ND<50	ND<50	ND<50	4,300	3,800	0.40	--	
DUP	12/21/01	NR	NR	NR	NR	NR	ND<5,000	ND<50	ND<50	ND<50	ND<50	4,500	3,500	--	--		
	03/06/02				P	9.33	326.20	ND<50	1.2	ND<0.50	1.1	13	880	--	0.43	--	
	04/26/02				P	9.19	326.34	260	3.7	ND<1.0	1.1	1.80	460	940	0.2	--	
	09/23/02				P	9.30 <sup>4</sup>	326.23 <sup>4</sup>	1,500 <sup>2</sup>	41	2.4	9.8	14	--	980	1.5	7.6	
	12/27/02				P	7.30 <sup>4</sup>	328.23 <sup>4</sup>	1,500 <sup>3</sup>	300	100	21	66	NA	1,100	2.2	8.6	
	3/12/03 <sup>7</sup>				P	8.06	NR <sup>6</sup>	ND<1,000	ND<10	ND<10	ND<10	ND<10	NA	45	1.6	7.4	
	06/28/03 <sup>8</sup>				P	338.18	8.60	329.58	1,500	20	27	12	45	--	140	1.7	7.6
	09/30/03				P	9.04	329.14	ND<2,500	ND<25	ND<25	ND<25	ND<25	--	650	0.9	7.4	
	12/05/03				P	8.57	329.61	ND<2,500	ND<25	ND<25	ND<25	ND<25	--	480	1.3	-- <sup>10</sup>	
	03/10/04				P	7.58	330.60	180	7.4	ND<1.0	ND<1.0	ND<1.0	--	75	2.0	7.6	

**Table 1  
Groundwater Elevation and Analytical Data**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

Well Number	Date of Sampling/ Monitoring	TOC Elevation (ft.-MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Water (ft.)	Groundwater Elevation (ft.-MSL)	GRO/ TPH-g <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen <sup>9</sup> (mg/L)	pH Level <sup>9</sup>
MW-4	02/15/95	334.22		14.50	7.85	326.37	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	05/24/95				6.68	327.54	Not sampled: well sampled semi-annually, during the first and third quarters								
	08/25/95				6.93	327.29	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	--	--
	11/28/95				8.21	326.01	Not sampled: well sampled semi-annually, during the first and third quarters								
	02/26/96				6.65	327.57	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	--	--
	05/23/96				6.47	327.75	Not sampled: well sampled semi-annually, during the first and third quarters								
	08/23/96				7.66	326.56	Not sampled: well not part of sampling program								
	03/21/97				6.84	327.38	Not sampled: well not part of sampling program								
	08/20/97				8.32	325.90	Not sampled: well not part of sampling program								
	11/21/97				8.65	325.57	Not sampled: well not part of sampling program								
	02/12/98				6.35	327.87	Not sampled: well not part of sampling program								
	07/31/98				6.84	327.38	Not sampled: well not part of sampling program								
	02/17/99				7.50	326.72	Not sampled: well not part of sampling program								
	08/24/99				9.50	324.72	Not sampled: well not part of sampling program								
	03/01/00				6.93	327.29	Not sampled: well not part of sampling program								
	08/18/00				7.03	327.19	Not sampled: well not part of sampling program								
	12/27/00				8.10	326.12	Not sampled: well not part of sampling program								
	02/09/01				7.97	326.25	Not sampled: well not part of sampling program								
	04/17/01				8.90	325.32	Not sampled: well not part of sampling program								
	07/17/01				8.59	325.63	Not sampled: well not part of sampling program								
	12/21/01	NP			8.31	325.91	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.1	2.0	0.68	--
	03/06/02	P			8.27	325.95	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	0.37	--
	04/26/02	P			8.05	326.17	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	3.6	--	0.3	--
	09/23/02	P			7.94	326.28	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.9	4.1	7.3
	12/27/02	P			7.56	326.66	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	2.6	2.1	6.9
	3/12/2003 <sup>7</sup>	P			7.67	326.55	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	1.6	2.8	6.8
	06/28/03 <sup>8</sup>	P	336.87		7.60	329.27	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.1	--	5.6
	09/30/03	P			7.66	329.21	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	1.4	2.2	6.9
	12/05/03	P			5.61	331.26	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.3	3.0	7.0
	03/10/04	P			6.84	330.03	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	2.1	4.0	6.2

**Table 1  
Groundwater Elevation and Analytical Data**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

Well Number	Date of Sampling/ Monitoring	TOC Elevation (ft.-MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Water (ft.)	Groundwater Elevation (ft.-MSL)	GROV TPH-g <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen <sup>9</sup> (mg/L)	pH Level <sup>9</sup>		
MW-5	02/15/95	335.87		17.40	7.80	328.07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--		
	05/24/95				8.10	327.77	Not sampled: well sampled annually, during the first quarter										
	08/25/95				9.43	326.44	Not sampled: well sampled annually, during the first quarter										
	11/28/95				10.12	325.75	Not sampled: well sampled annually, during the first quarter										
	02/26/96				6.73	329.14	03-13-96	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	--	--		
	05/23/96				7.87	328.00	Not sampled: well sampled annually, during the first quarter										
	08/23/96				9.46	326.41	Not sampled: well not part of sampling program										
	03/21/97				8.23	327.64	Not sampled: well not part of sampling program										
	08/20/97				9.92	325.95	Not sampled: well not part of sampling program										
	11/21/97				10.18	325.69	Not sampled: well not part of sampling program										
	02/12/98				6.45	329.42	Not sampled: well not part of sampling program										
	07/31/98				8.98	326.89	Not sampled: well not part of sampling program										
	02/17/99				7.65	328.22	Not sampled: well not part of sampling program										
	08/24/99				8.10	327.77	Not sampled: well not part of sampling program										
	03/01/00				7.31	328.56	Not sampled: well not part of sampling program										
	08/18/00				8.65	327.22	Not sampled: well not part of sampling program										
	12/27/00				9.80	326.07	Not sampled: well not part of sampling program										
	02/09/01				9.65	326.22	Not sampled: well not part of sampling program										
	04/17/01				9.92	325.95	Not sampled: well not part of sampling program										
	07/17/01				9.95	325.92	Not sampled: well not part of sampling program										
	12/21/01				Well inaccessible												
	03/06/02				Well inaccessible												
	04/26/02				Well inaccessible												
09/23/02				7.94	327.93	Not sampled: well not part of sampling program											
12/27/02	P			7.57	328.30	ND<50	ND<0.50	ND<0.50	ND<0.50	0.76	--	15	0.7	6.9			
3/12/2003 <sup>7</sup>				8.32	327.55	Not sampled: well not part of sampling program											
06/28/03 <sup>8</sup>		338.59		8.58	330.01	Not sampled: well not part of sampling program											
09/30/03			9.28	329.31	Not sampled: well not part of sampling program												
12/05/03	P			9.11	329.48	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	22	2.9	7.1			
03/10/04				7.57	331.02	Not sampled: well not part of sampling program											

**Table 1  
Groundwater Elevation and Analytical Data**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

Well Number	Date of Sampling/ Monitoring	TOC Elevation (ft.-MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Water (ft.)	Groundwater Elevation (ft.-MSL)	GRO/ TPH-g <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen <sup>9</sup> (mg/L)	pH Level <sup>9</sup>		
MW-6	02/15/95	335.84		12.70	7.81	328.03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--		
	05/24/95				8.35	327.49	Not sampled: well sampled annually, during the first quarter										
	08/25/95				9.71	326.13	Not sampled: well sampled annually, during the first quarter										
	11/28/95				10.28	325.56	Not sampled: well sampled annually, during the first quarter										
	02/26/96				6.60	329.24	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<3	--	--	--		
	05/23/96				8.05	327.79	Not sampled: well sampled annually, during the first quarter										
	08/23/96				9.58	326.26	Not sampled: well not part of sampling program										
	03/21/97				8.39	327.45	Not sampled: well not part of sampling program										
	08/20/97				9.98	325.86	Not sampled: well not part of sampling program										
	11/21/97				10.31	325.53	Not sampled: well not part of sampling program										
	02/12/98	3.15	332.69	Not sampled: well not part of sampling program													
	07/31/98	9.29	326.55	Not sampled: well not part of sampling program													
	02/17/99	7.72	328.12	Not sampled: well not part of sampling program													
	08/24/99	9.65	326.19	Not sampled: well not part of sampling program													
	03/01/00	7.35	328.49	Not sampled: well not part of sampling program													
	08/18/00	8.65	327.19	Not sampled: well not part of sampling program													
	12/27/00	9.83	326.01	Not sampled: well not part of sampling program													
	02/09/01	9.62	326.22	Not sampled: well not part of sampling program													
	04/17/01	10.03	325.81	Not sampled: well not part of sampling program													
	07/17/01	9.95	325.89	Not sampled: well not part of sampling program													
	12/21/01	NP				9.47	326.37	ND<50	ND<0.50	ND<0.50	ND<0.50	0.57	ND<2.5	--	0.55	--	
	03/06/02	P				9.31	326.53	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	0.33	--	
	04/26/02	P				9.09	326.75	ND<50	ND<0.50	ND<0.50	ND<0.50	0.7	ND<2.5	--	0.31	--	
	09/23/02	P				9.14	326.70	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	ND<0.50	2.1	7.4	
	12/27/02	P				7.26	328.58	ND<50	ND<0.50	ND<0.50	ND<0.50	0.63	NA	0.91	0.8	7.0	
	3/12/2003 <sup>7</sup>	P				8.41	327.43	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	0.64	1.3	7.2	
06/28/03 <sup>8</sup>	P	338.37		322.57	8.56	329.81	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	--	0.62	1.6	6.8		
09/30/03	P				9.32	329.05	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	--	3.9	0.8	7.0		
12/05/03					8.96	329.41	Not sampled: well not part of sampling program										
03/10/04					7.65	330.72	Not sampled: well not part of sampling program										

**Table 1  
Groundwater Elevation and Analytical Data**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

Well Number	Date of Sampling/ Monitoring	TOC Elevation (ft.-MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Water (ft.)	Groundwater Elevation (ft.-MSL)	GRO/ TPH-g <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen <sup>9</sup> (mg/L)	pH Level <sup>9</sup>
MW-7	12/21/01	NR		8.20	NR	NR	Not sampled: well dry								
	03/06/02	NR			NR	NR	Not sampled: well dry								
	04/26/02	NR			NR	NR	Not sampled: well dry								
	09/23/02	NR			NR	NR	Not sampled: well dry								
	12/27/02	P <sup>5</sup> NR			7.74	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	NA	4.7	2.7	7.0
	3/12/2003 <sup>7</sup>	NR			DRY	NR	Not sampled: well dry								
	06/28/03 <sup>8</sup>	338.62			DRY	NR	Not sampled: well dry								
	09/30/03				DRY	NR	Not sampled: well dry								
	12/05/03				DRY	NR	Not sampled: well dry								
	03/10/04				7.78	330.84	Not sampled: well not part of sampling program								
MW-8	12/21/01	NP NR		12.60	8.70	NR	ND<5,000	67	ND<50	ND<50	ND<50	2,400	1,300	0.60	--
	03/06/02	P NR			8.63	NR	210	41	0.64	0.79	2.0	940	--	0.25	--
DUP	03/06/02	NR			NR	NR	170	37	0.67	0.70	1.9	740	--	--	--
	04/26/02	P NR			8.15	NR	680	95	ND<1.0	14	2.5	490	--	0.31	--
DUP	04/26/02	NR			NR	NR	480	74	3.5	11.00	ND<1.0	640	--	--	--
	09/30/02	P NR			9.37	NR	1,100 <sup>3</sup>	120	ND<5.0	57	8.7	NA	1,100	1.3	6.9
	12/27/02	P NR			7.55	NR	350 <sup>2</sup>	13	ND<0.50	2.4	2.2	NA	73	0.8	6.9
	3/12/2003 <sup>7</sup>	P NR			8.25	NR	ND<2,500	89	ND<25	ND<25	ND<25	NA	740	1.4	6.9
	06/28/03 <sup>8</sup>	P 338.27			8.38	329.89	7,000	680	ND<25	110	180	--	2,900	1.9	4.8
	09/30/03	P			9.09	329.18	1,500	240	18	45	150	--	180	1.0	6.8
	12/05/03	P			8.37	329.90	590	60	ND<2.5	15	4.2	--	150	1.5	7.1
03/10/04	P			7.41	330.86	690	50	ND<5.0	7.4	6.8	--	370	2.2	6.3	
VW-2	03/21/97	NR			8.22	NR	150	8.9	ND<0.5	ND<0.5	0.6	270	--	--	--
	08/20/97	NR			9.16	NR	Not sampled: well not part of sampling program								
	11/21/97	NR			8.27	NR	ND<200	3	ND<2	ND<2	ND<2	180	--	--	--
	02/12/98	NR			6.65	NR	200	19	ND<0.5	0.6	ND<0.5	2,200	--	--	--
	07/31/98	NR			7.01	NR	Not sampled: well not part of sampling program								
	02/17/99	NR			8.47	NR	Not sampled: well not part of sampling program								
	08/24/99	NR			8.20	NR	Not sampled: well not part of sampling program								
	03/01/00	NR			8.72	NR	Not sampled: well not part of sampling program								
	08/18/00	NP NR			8.40	NR	ND<250	ND<2.50	ND<2.50	ND<2.50	ND<2.50	537	--	1.59	--
	12/27/00	NR			8.95	NR	Not sampled: Well Dry								
	02/09/01	NR			8.87	NR	Not sampled: Well Dry								
	04/17/01	NR			9.00	NR	Not sampled: Well Dry								
	07/17/01	NR			8.97	NR	Not sampled: Well Dry								
12/21/01						Well abandoned during station upgrade activities									

**Table 1  
Groundwater Elevation and Analytical Data**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

Well Number	Date of Sampling/ Monitoring	TOC Elevation (ft.-MSL)	Top of Screen (ft., bgs)	Bottom of Casing (ft., bgs)	Depth to Water (ft.)	Groundwater Elevation (ft.-MSL)	GRO/TPH-g <sup>11</sup> (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8021B* (µg/L)	MTBE 8260 (µg/L)	Dissolved Oxygen <sup>9</sup> (mg/L)	pH Level <sup>9</sup>
Shell MW-6 DUP	12/27/00	P	NR		9.13	NR	74.7	ND<0.500	ND<0.500	ND<0.500	ND<0.500	ND<2.50	--	1.30	--
	12/27/00		NR		NR	NR	79.3	ND<0.500	ND<0.500	ND<0.500	ND<0.500	ND<2.50	--	--	--
	02/09/01	P	NR		9.05	NR	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<0.500	ND<2.50	--	1.29	--
	04/17/01	P	NR		10.17	NR	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<0.500	ND<2.50	--	0.95	--
	07/17/01	P	NR		9.50	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	4.2	--	1.03	--
	12/21/01	P	NR		9.98	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	0.97	--
	03/06/02	P	NR		9.90	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	0.97	--
	04/26/02	P	NR		9.47	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	0.97	--
	09/27/02		Well destroyed												
Shell MW-7	12/27/00	P	NR		6.45	NR	ND<50.0	ND<0.500	0.696	ND<0.500	0.795	ND<2.50	--	1.33	--
	02/09/01	P	NR		6.39	NR	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<0.500	ND<2.50	--	1.13	--
	04/17/01	P	NR		7.22	NR	ND<50.0	ND<0.500	ND<0.500	ND<0.500	ND<0.500	ND<2.50	--	1.12	--
	07/17/01	P	NR		6.93	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	1.05	--
	12/21/01	P	NR		7.15	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	--	--
	03/06/02	P	NR		7.03	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<5.0	--	0.95	--
	04/26/02	P	NR		7.15	NR	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<2.5	--	0.95	--
	09/27/02		Well destroyed												

- Notes:
- = Not analyzed or not applicable
  - \* = EPA method 8020 prior to 03/01/00
  - \*\* = For previous historical groundwater elevation and analytical data please refer to Fourth Quarter Groundwater Monitoring Program Results , ARCO Service Station 6041, Dublin, CA (EMCON, February 26, 1996).
  - µg/L = Micrograms per liter
  - bgs = below ground surface
  - BTEX = Benzene, toluene, ethylbenzene, total xylenes by EPA method 8021B. (EPA method 8020 prior to 03/01/00).
  - DUP = Duplicate
  - EPA = United States Environmental Protection Agency
  - ft = feet
  - GRO = Gasoline Range Organics
  - mg/L = Milligrams per liter
  - MSL = Mean sea level
  - MTBE = Methyl tert-butyl ether analyzed using EPA Method 8260B
  - ND< = Not detected at or above the laboratory reporting limit.
  - NR = Not reported; data not available or not measurable
  - P = Purge Sample
  - TOC = Top of casing
  - TPH-g = Total Petroleum Hydrocarbons as gasoline analyzed using EPA Method 8015B modified
  - 1 = Discrete peak at C6-C7.
  - 2 = Hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
  - 3 = Chromatogram Pattern: C6-C10
  - 4 = Well casing broken, TOC unknown.
  - 5 = Well mistakenly sampled this quarter
  - 6 = Well casing was repaired and needs to be resurveyed.
  - 7 = Beginning the 1st quarter of 2003, TPH-g, BTEX and MTBE were analyzed by EPA Method 8260B.
  - 8 = Elevations resurveyed on 7/21/2003.
  - 9 = Dissolved oxygen and pH levels are field measurements.
  - 10 = pH measurements ranged from 7.2 to 11.25.
  - 11 = Please note that beginning in the Fourth Quarter 2003, the laboratory modified the reported analyte list. Total Petroleum Hydrocarbons as Gasoline (TPHg) has been changed to Gasoline Range Organics (GRO). The resulting data may be impacted by the potential inclusion of non-TPHg analytes within the requested fuel range resulting in a higher concentration being reported.

Source The data within this table collected prior to September 2002 was provided to URS by Atlantic Richfield Company and their previous consultants. URS has not verified the accuracy of this information.

**Table 2**  
**Groundwater Flow Direction and Gradient**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

<b>Date Measured</b>	<b>Average Flow Direction</b>	<b>Average Hydraulic Gradient</b>
02/15/95	NR	NR
05/24/95	East-Southeast	0.002
08/25/95	Northwest	0.006
11/28/95	North	0.006
02/26/96	East	0.012
05/23/96	Flat Gradient	Flat Gradient
08/23/96	Flat Gradient	Flat Gradient
03/21/97	South-Southeast	0.005
08/20/97	South-Southwest	0.001
11/21/97	South-Southwest	0.002
02/12/98	East	0.024
07/31/98	Northwest	0.01
02/17/99	Southeast	0.007
08/24/99	South-Southwest	0.013
03/01/00	South-Southeast	0.005
09/26/00	South-Southeast	0.002
12/27/00	West-Southwest	0.003
02/09/01	West-Southwest	0.003
04/17/01	South-Southwest	0.015
07/17/01	South-Southwest	0.003
12/21/01	East	0.002
03/06/02	East	0.003
04/26/02	Southeast	0.003
09/27/02	South	0.013
12/27/02	Southeast	0.011
03/12/03	South-Southeast	0.008
06/28/03	South	0.001
09/30/03	Southwest	0.002
12/05/03	West	0.009
<b>03/10/04</b>	<b>South-Southeast</b>	<b>0.003</b>

**Source:**

The data within this table collected prior to September 2002 was provided to URS by Atlantic Richfield Company and their previous consultants. URS has not verified the accuracy of this information.

**Table 3**  
**Fuel Oxygenate Analytical Data**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

Well Number	Date Sampled	Ethanol (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-2	12/27/02	ND<20,000	ND<10,000	790	ND<250	ND<250	ND<250	ND<250	ND<250
	03/12/03	ND<100	540	11	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	06/28/03	ND<100	ND<20	1.2	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/30/03	ND<100	290	5.2	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	12/05/03	ND<100	730	2.6	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	03/10/04	ND<1,000	13,000	5.6	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
MW-3	12/27/02	ND<40,000	ND<20,000	1,100	ND<500	ND<500	ND<500	ND<500	ND<500
	03/12/03	ND<2,000	6,100	45	ND<10	ND<10	ND<10	ND<10	ND<10
	06/28/03	ND<2,000	29,000	140	ND<10	ND<10	ND<10	ND<10	ND<10
	09/30/03	ND<5,000	39,000	650	ND<25	ND<25	ND<25	ND<25	ND<25
	12/05/03	ND<5,000	39,000	480	ND<25	ND<25	ND<25	ND<25	ND<25
	03/10/04	ND<200	590	75	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
MW-4	12/27/02	ND<40	ND<20	2.6	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	03/12/03	ND<100	ND<20	1.6	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	06/28/03	ND<100	ND<20	2.1	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/30/03	ND<100	ND<20	1.4	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	12/05/03	ND<100	ND<20	2.3	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	03/10/04	ND<100	ND<20	2.1	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-5	12/27/02	ND<40	ND<20	15	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	12/05/03	ND<100	ND<20	22	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-6	12/27/02	ND<40	ND<20	0.91	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	03/12/03	ND<100	ND<20	0.64	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	06/28/03	ND<100	ND<20	0.62	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	09/30/03	ND<500	ND<100	3.9	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
MW-7	12/27/02	ND<40	ND<20	4.7	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
MW-8	12/27/02	ND<400	260	73	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0
	03/12/03	ND<5,000	2,200	740	ND<25	ND<25	ND<25	ND<25	ND<25
	06/28/03	ND<5,000	12,000	2,900	ND<25	ND<25	ND<25	ND<25	ND<25
	09/30/03	ND<2,000	28,000 <sup>a</sup>	180	ND<10	ND<10	ND<10	ND<10	ND<10
	12/05/03	ND<500	500	150	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
	03/10/04	ND<1,000	420	370	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0



**Table 3**  
**Fuel Oxygenate Analytical Data**

ARCO Service Station #6041  
7249 Village Parkway  
Dublin, California

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Note	= All fuel oxygenate compounds analyzed using EPA Method 8260B
1,2-DCA	= 1,2-Dichloroethane
a	= The result was reported with a possible high bias due to the continuing calibration verification falling outside acceptance criteria.
DIPE	= Di-isopropyl ether
EDB	= 1,2-Dibromoethane
ETBE	= Ethyl tert butyl ether
µg/L	= micrograms per liter
MTBE	= Methyl tert-butyl ether
ND<	= Not detected at or above the laboratory reporting limit.
TAME	= tert-Amyl methyl ether
TBA	= tert-Butyl alcohol

**ATTACHMENT A**  
**FIELD PROCEDURES AND FIELD DATA SHEETS**

## FIELD PROCEDURES

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### Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and depth to bottom, and checking for the presence of free phase petroleum product (free product), using either an electronic indicator and a clear Teflon™ bailer or an oil-water interface probe.

Wells not containing free product are purged approximately three casing volumes of water (or until dewatered) using a centrifugal pump, gas displacement pump, or bailer. Equipment and purging method used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially (approximately 80%) recover. Groundwater samples (both purge and no purge) are collected using a Teflon bailer, placed into appropriate Environmental Protection Agency- (EPA) approved containers, labeled, logged onto chain-of-custody records, and transported on ice to a California State-certified laboratory. Wells with free product are not sampled and free product is removed according to California Code of Regulation, Title 23, Div. 3, Chap. 16, Section 2655, UST Regulations.

# WELL GAUGING DATA

Project # 040310-BAZ Date 3/10/04 Client Arco 6041

Site 7249 Village Pkwy, Dublin

	Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC		
JP 10'	MW-2	4					6.70	9.45	TOC		
	MW-3	4					7.58	13.89			
	MW-4	4	Pressure				6.84	14.47			
50	MW-5	4					7.57	17.39			
60	MW-6	4					7.65	12.70			
60	MW-7	4					7.78	8.14		2x2 vault	
	MW-8	4					7.41	12.60		2x2 vault	
										↓	

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040310-BAZ	Station # 6041
Sampler: Brian Alcorn	Date: 3/10/04
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8
Total Well Depth: 9.45	Depth to Water: 6.70
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) (HACH)

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <u>Bailer</u> (Disposable Bailer) Positive Air Displacement Electric Submersible Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> (Disposable Bailer) Extraction Port Other: _____
--	--

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

1.8	x	3	=	5.4	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1053	68.4	6.5	3,547	1.8	cloudy gray
1057	68.4	6.3	3,530	3.6	" "
1101	68.9	6.4	3,525	5.4	" "

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: 5.4
Sampling Time: 1104	Sampling Date: 3/10/04
Sample I.D.: MW-2	Laboratory: Pace (Sequoia) Other _____
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D	Other: Oxyg, Ethanol, 1,2-DCA, EDB ALL by 8260
D.O. (if req'd):	Pre-purge: _____ mg/L
	Post-purge: 2.1 mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV
	Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040310-BAZ	Station # 6041
Sampler: Brian Alcorn	Date: 3/10/04
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8
Total Well Depth: 13.89	Depth to Water: 7.58
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) (HACH)

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <input type="checkbox"/> Bailer <input type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input checked="" type="checkbox"/> Electric Submersible <input type="checkbox"/> Extraction Pump Other: _____	Sampling Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port Other: _____
---	---

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

4.1	X	3	=	12.3	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or $\mu$ S)	Gals. Removed	Observations
1116	72.5	7.4	647	4.1	cloudy gray
1116	Well Dewatered @ 4.1 gallons				
1200	72.3	7.6	607	4.1	cloudy gray

Did well dewater? (Yes) No	Gallons actually evacuated: 4.1	
Sampling Time: 1200	Sampling Date: 3/10/04	
Sample I.D.: MW-3	Laboratory: Pace (Sequoia) Other _____	
Analyzed for: (TPH-G) (BTEX) MTBE TPH-D	Other: Oxy, Ethanol, 1,2-DCA, EDB ALL by 8260	
D.O. (if req'd):	Pre-purge: _____ mg/L	Post-purge: 2.0 mg/L
O.R.P. (if req'd):	Pre-purge: _____ mV	Post-purge: _____ mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040310-BAZ	Station # 6041
Sampler: Brian Alcorn	Date: 3/10/04
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8
Total Well Depth: 14.47	Depth to Water: 6.84
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (Yes) (NACH)

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method: <u>Bailer</u> Disposable Bailer Positive Air Displacement <u>Electric Submersible</u> Extraction Pump Other: _____	Sampling Method: <u>Bailer</u> Disposable Bailer Extraction Port Other: _____
---	--

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

5.0	X	3	=	15.0	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or µS)	Gals. Removed	Observations
1042	73.4	6.2	5,013	5.0	clear
1044	69.9	6.2	5,160	10.0	"
1044	Well Dewatered @ 10 gallons				
1150	70.8	6.2	5,036	10.0	cloudy gray

Did well dewater? (Yes) No Gallons actually evacuated: 10.0

Sampling Time: 1150 Sampling Date: 3/10/04

Sample I.D.: MW-4 Laboratory: Pace (Sequoia) Other \_\_\_\_\_

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxy, Ethanol, 1,2-DCA, RDB ALL by 8260

D.O. (if req'd):	Pre-purge:	mg/L	(Post-purge):	4.0 mg/L
	Pre-purge:	mV	Post-purge:	mV

## ARCO / BP WELL MONITORING DATA SHEET

BTS #: 040310-BAZ	Station # 6041
Sampler: Brian Alcorn	Date: 3/10/04
Well I.D.: MW-8	Well Diameter: 2 3 (4) 6 8
Total Well Depth: 12.60	Depth to Water: 7.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) (HACH)

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Purge Method:  Bailer  
 Disposable Bailer  
 Positive Air Displacement  
 Electric Submersible  
 Extraction Pump  
 Other: \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Other: \_\_\_\_\_

Top of Screen: \_\_\_\_\_ If well is listed as a no-purge, confirm that water level is below the top of screen. Otherwise, the well must be purged.

3.4	x	3	=	10.2	Gals.
1 Case Volume (Gals.)		Specified Volumes		Calculated Volume	

Time	Temp (°F)	pH	Conductivity (mS or (µS))	Gals. Removed	Observations
1125	72.1	6.4	765	3.4	cloudy gray, odor
1126	68.9	6.3	1,030	6.8	" " "
1127	67.8	6.3	1,051	10.2	" " "

Did well dewater? Yes  No  Gallons actually evacuated: 10.2

Sampling Time: 1130 Sampling Date: 3/10/04

Sample I.D.: MW-8 Laboratory: Pace (Sequoia) Other: \_\_\_\_\_

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: Oxys, Ethanol, 1,2-DCA, EDB ALL by 8260

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.2	mg/L
	O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



**BP GEM OIL COMPANY TYPE A BILL OF LADING**

SOURCE RECORD BILL OF LADING FOR NON-HAZARDOUS PURGEWATER RECOVERED FROM GROUNDWATER WELLS AT BP GEM OIL COMPANY FACILITIES IN THE STATE OF CALIFORNIA. THE NON-HAZARDOUS PURGE- WATER WHICH HAS BEEN RECOVERED FROM GROUND- WATER WELLS IS COLLECTED BY THE CONTRACTOR, MADE UP INTO LOADS OF APPROPRIATE SIZE AND HAULED BY DILLARD ENVIRONMENTAL TO THE ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY IN LIVERMORE, CALIFORNIA.

The contractor performing this work is BLAINE TECH SERVICES, INC. (BTS), 1680 Rogers Avenue, San Jose, CA 95112 (phone [408] 573-0555). Blaine Tech Services, Inc. is authorized by BP GEM OIL COMPANY to recover, collect, apportion into loads the Non-Hazardous Well Purgewater that is drawn from wells at the BP GEM Oil Company facility indicated below and deliver that purgewater to BTS. Transport routing of the Non-Hazardous Well Purgewater may be direct from one BP GEM facility to the designated destination point; from one BP GEM facility to the designated destination point via another BP GEM facility; from a BP GEM facility to the designated destination point via the contractor's facility, or any combination thereof. The Non-Hazardous Well Purgewater is and remains the property of BP GEM Oil Company.

This Source Record BILL OF LADING was initiated to cover the recovery of Non-Hazardous Well Purgewater from wells at the BP GEM Oil Company facility described below:

6401  
Station #

7249 Village Pkwy, Dublin  
Station Address

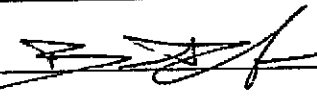
Total Gallons Collected From Groundwater Monitoring Wells:

---

added equip. \_\_\_\_\_ any other adjustments \_\_\_\_\_  
rinse water \_\_\_\_\_

TOTAL GALS. RECOVERED 32 loaded onto BTS vehicle # 58

BTS event # \_\_\_\_\_ time \_\_\_\_\_ date 3 / 10 / 04  
040310-BA2 1230

signature 

\*\*\*\*\*  
REC'D AT \_\_\_\_\_ time \_\_\_\_\_ date 1 / 1

unloaded by \_\_\_\_\_  
signature \_\_\_\_\_

**ATTACHMENT B**  
**LABORATORY PROCEDURES,  
CERTIFIED ANALYTICAL REPORTS,  
AND CHAIN-OF-CUSTODY RECORDS**

## **LABORATORY PROCEDURES**

---

### **Laboratory Procedures**

The groundwater samples were analyzed for the presence of the chemicals mentioned in the chain of custody using standard EPA methods. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical reports and chain-of-custody record are presented in this attachment. The analytical data provided by the laboratory approved by Atlantic Richfield Company have been reviewed and verified by that laboratory.



24 March, 2004

Scott Robinson  
URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland, CA 94612

RE: ARCO #6041, Dublin, CA  
Work Order: MNC0330

Enclosed are the results of analyses for samples received by the laboratory on 03/11/04 15:28. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lisa Race  
Senior Project Manager

CA ELAP Certificate #1210

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612Project: ARCO #6041, Dublin, CA  
Project Number: INTRIM-50691  
Project Manager: Scott RobinsonMNC0330  
**Reported:**  
03/24/04 11:25**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	MNC0330-01	Water	03/10/04 11:04	03/11/04 15:28
MW-3	MNC0330-02	Water	03/10/04 12:00	03/11/04 15:28
MW-4	MNC0330-03	Water	03/10/04 11:50	03/11/04 15:28
MW-8	MNC0330-04	Water	03/10/04 11:30	03/11/04 15:28

These samples were received with intact custody seals.

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #6041, Dublin, CA  
 Project Number: INTRIM-50691  
 Project Manager: Scott Robinson

 MNC0330  
 Reported:  
 03/24/04 11:25

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>MW-2 (MNC0330-01) Water    Sampled: 03/10/04 11:04    Received: 03/11/04 15:28</b>										
Ethanol	ND	1000		ug/l	10	4C20001	03/20/04	03/20/04	EPA 8260B	
tert-Butyl alcohol	13000	200		"	"	"	"	"	"	
Methyl tert-butyl ether	5.6	5.0		"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0		"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Benzene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Xylenes (total)	ND	5.0		"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	ND	500		"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		114 %		78-129		"	"	"	"	
<b>MW-3 (MNC0330-02) Water    Sampled: 03/10/04 12:00    Received: 03/11/04 15:28</b>										
Ethanol	ND	200		ug/l	2	4C20001	03/20/04	03/20/04	EPA 8260B	
tert-Butyl alcohol	590	40		"	"	"	"	"	"	
Methyl tert-butyl ether	75	1.0		"	"	"	"	"	"	
Di-isopropyl ether	ND	1.0		"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	1.0		"	"	"	"	"	"	
tert-Amyl methyl ether	ND	1.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	1.0		"	"	"	"	"	"	
<b>Benzene</b>	7.4	1.0		"	"	"	"	"	"	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	
Gasoline Range Organics (C6-C10)	180	100		"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		112 %		78-129		"	"	"	"	

URS Corporation (Arco)  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #6041, Dublin, CA  
Project Number: INTRIM-50691  
Project Manager: Scott Robinson

MNC0330  
Reported:  
03/24/04 11:25

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-4 (MNC0330-03) Water    Sampled: 03/10/04 11:50    Received: 03/11/04 15:28</b>									
Ethanol	ND	100	ug/l	1	4C20001	03/20/04	03/20/04	EPA 8260B	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>2.1</b>	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
<b>Gasoline Range Organics (C6-C10)</b>	<b>ND</b>	<b>50</b>	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>113 %</i>	<i>78-129</i>		"	"	"	"	
<b>MW-8 (MNC0330-04) Water    Sampled: 03/10/04 11:30    Received: 03/11/04 15:28</b>									
Ethanol	ND	1000	ug/l	10	4C20001	03/20/04	03/20/04	EPA 8260B	
<b>tert-Butyl alcohol</b>	<b>420</b>	200	"	"	"	"	"	"	
<b>Methyl tert-butyl ether</b>	<b>370</b>	5.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	5.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
<b>Benzene</b>	<b>50</b>	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>7.4</b>	5.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>6.8</b>	5.0	"	"	"	"	"	"	
<b>Gasoline Range Organics (C6-C10)</b>	<b>690</b>	500	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		<i>110 %</i>	<i>78-129</i>		"	"	"	"	

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #6041, Dublin, CA  
 Project Number: INTRIM-50691  
 Project Manager: Scott Robinson

 MNC0330  
 Reported:  
 03/24/04 11:25

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4C20001 - EPA 5030B P/T**
**Blank (4C20001-BLK1)**

Prepared &amp; Analyzed: 03/20/04

Ethanol	ND	100	ug/l							
tert-Butyl alcohol	ND	20	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Gasoline Range Organics (C6-C10)	ND	50	"							

*Surrogate: 1,2-Dichloroethane-d4*

5.33

"

5.00

107

78-129

**Laboratory Control Sample (4C20001-BS1)**

Prepared &amp; Analyzed: 03/20/04

Ethanol	201	100	ug/l	200	100	31-143				
tert-Butyl alcohol	47.7	20	"	50.0	95.4	56-131				
Methyl tert-butyl ether	10.4	0.50	"	10.0	104	63-137				
Di-isopropyl ether	8.49	0.50	"	10.0	84.9	76-130				
Ethyl tert-butyl ether	9.92	0.50	"	10.0	99.2	81-121				
tert-Amyl methyl ether	10.2	0.50	"	10.0	102	82-140				
1,2-Dichloroethane	11.1	0.50	"	10.0	111	77-136				
1,2-Dibromoethane (EDB)	11.3	0.50	"	10.0	113	77-132				
Benzene	9.33	0.50	"	10.0	93.3	69-124				
Toluene	9.88	0.50	"	10.0	98.8	78-129				
Ethylbenzene	9.69	0.50	"	10.0	96.9	84-132				
Xylenes (total)	29.2	0.50	"	30.0	97.3	83-137				

*Surrogate: 1,2-Dichloroethane-d4*

5.19

"

5.00

104

78-129



URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #6041, Dublin, CA  
 Project Number: INTRIM-50691  
 Project Manager: Scott Robinson

 MNC0330  
 Reported:  
 03/24/04 11:25

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4C20001 - EPA 5030B P/T**
**Laboratory Control Sample (4C20001-BS2)**

Prepared &amp; Analyzed: 03/20/04

Methyl tert-butyl ether	9.18	0.50	ug/l	10.1		90.9	63-137			
Benzene	5.25	0.50	"	6.48		81.0	69-124			
Toluene	35.0	0.50	"	29.7		118	78-129			
Ethylbenzene	7.84	0.50	"	7.20		109	84-132			
Xylenes (total)	39.8	0.50	"	33.7		118	83-137			
Gasoline Range Organics (C6-C10)	364	50	"	440		82.7	70-124			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.27</i>		<i>"</i>	<i>5.00</i>		<i>105</i>	<i>78-129</i>			

**Laboratory Control Sample Dup (4C20001-BSD1)**

Prepared: 03/20/04 Analyzed: 03/21/04

Ethanol	230	100	ug/l	200		115	31-143	13.5	20	CC04
tert-Butyl alcohol	46.3	20	"	50.0		92.6	56-131	2.98	20	
Methyl tert-butyl ether	10.2	0.50	"	10.0		102	63-137	1.94	20	
Di-isopropyl ether	8.03	0.50	"	10.0		80.3	76-130	5.57	20	
Ethyl tert-butyl ether	9.63	0.50	"	10.0		96.3	81-121	2.97	20	
tert-Amyl methyl ether	9.81	0.50	"	10.0		98.1	82-140	3.90	20	
1,2-Dichloroethane	11.0	0.50	"	10.0		110	77-136	0.905	20	
1,2-Dibromoethane (EDB)	10.6	0.50	"	10.0		106	77-132	6.39	20	
Benzene	8.80	0.50	"	10.0		88.0	69-124	5.85	20	
Toluene	9.25	0.50	"	10.0		92.5	78-129	6.59	20	
Ethylbenzene	9.18	0.50	"	10.0		91.8	84-132	5.41	20	
Xylenes (total)	28.0	0.50	"	30.0		93.3	83-137	4.20	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.36</i>		<i>"</i>	<i>5.00</i>		<i>107</i>	<i>78-129</i>			

**Laboratory Control Sample Dup (4C20001-BSD2)**

Prepared: 03/20/04 Analyzed: 03/21/04

Methyl tert-butyl ether	9.02	0.50	ug/l	10.1		89.3	63-137	1.76	20	
Benzene	5.01	0.50	"	6.48		77.3	69-124	4.68	20	
Toluene	33.7	0.50	"	29.7		113	78-129	3.78	20	
Ethylbenzene	7.54	0.50	"	7.20		105	84-132	3.90	20	
Xylenes (total)	37.5	0.50	"	33.7		111	83-137	5.95	20	
Gasoline Range Organics (C6-C10)	326	50	"	440		74.1	70-124	11.0	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.39</i>		<i>"</i>	<i>5.00</i>		<i>108</i>	<i>78-129</i>			

URS Corporation [Arco]  
 1333 Broadway, Suite 800  
 Oakland CA, 94612

 Project: ARCO #6041, Dublin, CA  
 Project Number: INTRIM-50691  
 Project Manager: Scott Robinson

 MNC0330  
 Reported:  
 03/24/04 11:25

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 4C20001 - EPA 5030B P/T**

<b>Matrix Spike (4C20001-MS1)</b>	<b>Source: MNC0560-03</b>			<b>Prepared &amp; Analyzed: 03/20/04</b>						
Methyl tert-butyl ether	2060	25	ug/l	500	1600	92.0	63-137			QM04
Benzene	453	25	"	500	ND	90.6	69-124			
Toluene	480	25	"	500	ND	96.0	78-129			
Ethylbenzene	476	25	"	500	ND	95.2	84-132			
Xylenes (total)	1440	25	"	1500	ND	96.0	83-137			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.30</i>		<i>"</i>	<i>5.00</i>		<i>106</i>	<i>78-129</i>			

<b>Matrix Spike Dup (4C20001-MSD1)</b>	<b>Source: MNC0560-03</b>			<b>Prepared &amp; Analyzed: 03/20/04</b>						
Methyl tert-butyl ether	2070	25	ug/l	500	1600	94.0	63-137	0.484	20	QM04
Benzene	456	25	"	500	ND	91.2	69-124	0.660	20	
Toluene	490	25	"	500	ND	98.0	78-129	2.06	20	
Ethylbenzene	494	25	"	500	ND	98.8	84-132	3.71	20	
Xylenes (total)	1500	25	"	1500	ND	100	83-137	4.08	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>5.15</i>		<i>"</i>	<i>5.00</i>		<i>103</i>	<i>78-129</i>			

URS Corporation [Arco]  
1333 Broadway, Suite 800  
Oakland CA, 94612

Project: ARCO #6041, Dublin, CA  
Project Number: INTRIM-50691  
Project Manager: Scott Robinson

MNC0330  
**Reported:**  
03/24/04 11:25

### Notes and Definitions

- CC04 The continuing calibration verification was outside of client contractual acceptance limits by 3% high. However, it was within method acceptance limits. The data should still be useful for its intended purpose.
- QM04 The spike recovery was above control limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



# Chain of Custody Record

MNC0330

Project Name 6401 GWM  
 BP BU/GEM CO Portfolio Retail  
 BP Laboratory Contract Number: Atlantic Richfield Company  
 Requested Due Date (mm/dd/yy) 14 day TAT

Date: 3/10/04

On-site Time: 1000 Temp: 75  
 Off-site Time: 1230 Temp: 85  
 Sky Conditions: clear  
 Meteorological Events:  
 Wind Speed: 0-5 Direction: E

Send To:	BP/GEM Facility No.: <u>ARCO 6041</u>	Consultant/Contractor: <u>URS</u>
Lab Name: <u>SEQUOIA</u>	BP/GEM Facility Address: <u>7249 Village PKWY, DUBLIN, CA</u>	Address: <u>1333 Broadway, Suite 800</u>
Lab Address: <u>885 Jarvis Dr.</u>	Site ID No. <u>ARCO 6041</u>	<u>Oakland, CA 94612</u>
<u>Morgan Hill, CA 95037</u>	Site Lat/Long:	e-mail EDD: <u>donna.casper@URS Corp.com</u>
	<u>California Global ID #:</u>	Consultant/Contractor Project No.: <u>J3-00006041.01 00427</u>
Lab PM <u>Lisa Race</u>	BP/GEM PM Contact: <u>PAUL SUPPLE</u>	Consultant Tele/Fax: <u>510-893-3000/510-874-3268</u>
Tele/Fax: <u>408-776-9600 / 408-782-6308</u>	Address: <u>P.O. Box 6549</u>	Consultant/Contractor PM: <u>Scott Robinson</u>
Report Type & QC Level: <u>1 Send HDP Reports</u>	<u>Moraga, CA 94570</u>	Invoice to: <u>Consultant/Contractor of BP/GEM (circle one)</u>
BP/GEM Account No.:	Tele/Fax: <u>925-299-8891/925-299-8872</u>	BP/GEM Work Release No: <u>INTRIM -50691</u>

Item No.	Sample Description	Time	Matrix				Laboratory No.	No. of containers	Preservatives			Requested Analysis						Sample Point Lat/Long and Comments			
			Soil/Solid	Water/Liquid	Sediments	Air			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	TPH-G / BTEX (\$8015/8021) (\$250)	TPH-D (8015)	MTBE (8021)	MTBB (\$250)	MTBE, TAME, ETBE DPE, TBA (\$250)		1,2-DCA & EDB (\$250)	Ethanol (\$250)	
1	MW-2	1104	X				01	1					X								
2	MW-3	1200					02	1													
3	MW-4	1150					03	1													
4	MW-8	1130					04	1													
5	TR-6401-08102004	1000	X				05	2												ON HOLD	
6																					
7																					
8																					
9																					
10																					

Sampler's Name: <u>Brian Alford</u>	Relinquished By / Affiliation:	Date:	Time:	Accepted By / Affiliation:	Date:	Time:
Sampler's Company: <u>BRAIN TECH SERVICES</u>		<u>3/10/04</u>	<u>9:20</u>		<u>3/11/04</u>	<u>9:20</u>
Relinquishment Date:		<u>3/11/04</u>	<u>1528</u>		<u>3-11-04</u>	<u>1528</u>
Relinquishment Method:						
Tracking No.:						

Questions: Address Invoice to BP/GEM but send to URS for approval

Place Yes  No  Temperature Blank Yes  No  Cooler Temperature on Receipt 3.2 °C Trip Blank Yes  No

**ATTACHMENT C**

**EDCC REPORT AND EDF/GEOWELL SUBMITTAL CONFIRMATION**

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## Error Summary Log

03/24/04

EDF 1.2i All files present in deliverable.

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Laboratory:	Sequoia Analytical Laboratories, Inc., Morgan Hill, CA
Project Name:	ARCO #6041, Dublin, CA
Work Order Number:	MNC0330
Global ID:	T0600100109
Lab Report Number:	MNC0330032420041125

## Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
MNC0330032420 041125	MW-2	MNC033001	W	CS	8260TPH	SW5030B	03/10/04	03/20/04	03/20/04	4C20001	1
MNC0330032420 041125	MW-3	MNC033002	W	CS	8260TPH	SW5030B	03/10/04	03/20/04	03/20/04	4C20001	1
MNC0330032420 041125	MW-4	MNC033003	W	CS	8260TPH	SW5030B	03/10/04	03/20/04	03/20/04	4C20001	1
MNC0330032420 041125	MW-8	MNC033004	W	CS	8260TPH	SW5030B	03/10/04	03/20/04	03/20/04	4C20001	1
		MNC056003	W	NC	8260TPH	SW5030B	//	03/20/04	03/20/04	4C20001	1
		4C20001BSD1	WQ	BD1	8260TPH	SW5030B	//	03/20/04	03/21/04	4C20001	1
		4C20001BSD2	WQ	BD2	8260TPH	SW5030B	//	03/20/04	03/21/04	4C20001	1
		4C20001BS1	WQ	BS1	8260TPH	SW5030B	//	03/20/04	03/20/04	4C20001	1
		4C20001BS2	WQ	BS2	8260TPH	SW5030B	//	03/20/04	03/20/04	4C20001	1
		4C20001BLK1	WQ	LB1	8260TPH	SW5030B	//	03/20/04	03/20/04	4C20001	1
		4C20001MS1	W	MS1	8260TPH	SW5030B	//	03/20/04	03/20/04	4C20001	1
		4C20001MSD1	W	SD1	8260TPH	SW5030B	//	03/20/04	03/20/04	4C20001	1

# EDFSAMP: Error Summary Log

03/24/04

Error type	Logcode	Projname	Npdlwo	Sampid	Matrix
There are no errors in this data file					



# EDFTEST: Error Summary Log

03/24/04

Error type	Labsampid	Qccode	Anmcode	Exmcode	Anadate	Run number
There are no errors in this data file					//	0

# EDFRES: Error Summary Log

03/24/04

Error type	Labsampid	Qccode	Matrix	Anmcode	Pvccode	Anadate	Run number	Parlabel
There are no errors in this data file						//	0	

# EDFQC: Error Summary Log

03/24/04

Error type	Lablotctf	Anmcode	Parlabel	Qccode	Labqcid
There are no errors in this data files					



# EDFCL: Error Summary Log

03/24/04

Error type	Clevdate	Anmcode	Exmcode	Parlabel	Cicode
There are no errors in this data file	//				

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### UPLOADING A GEO\_WELL FILE

**Processing is complete. No errors were found!  
Your file has been successfully submitted!**

**Submittal Title:** QMR Geowell Q1 2004 Site  
6041

**Submittal Date/Time:** 3/18/2004 1:45:29 PM

**Confirmation**  
**Number:** 6996520817

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**Confirmation Number:** 6904516220

**Date/Time of Submittal:** 3/31/2004 12:46:47 PM

**Facility Global ID:** T0600100109

**Facility Name:** ARCO

**Submittal Title:** QMR Q1 2004 Site 6041

**Submittal Type:** GW Monitoring Report

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